level priority frequencies substantially instantaneously switching the receiver to, and maintaining a listening watch on, the highest priority frequency currently in use.

Remarks

The Abstract and Specification have been objected to in view of certain spelling and other informalities. Applicant has amended the Specification, including the Abstract, to correct these matters.

Claims 1-8 stand rejected under 35 U.S.C. §102 in view of '543 Rubin.

Rubin has been considered and the claims amended in conformity with the following comments.

We commence by reviewing and contrasting Rubin '543 against the present invention in the sincere belief that the present invention, even prior to the proposed amendment, patentably distinguishes over Rubin.

The present invention describes a receiver (or it could be a transceiver) which - - central to the invention - - defines a *plurality* of alternative frequencies (or channels) to which the receiver may be switched. But beyond this 'plural switchable frequencies' limitation (such receivers being notoriously well-known in the communication art), a preferred implementation of the instant invention contemplates that the receiver will be *programmed* to such multiple different frequencies/channels and, importantly, that each such frequency will be assigned a *relative priority* (including 'no priority') and, further, that the receiver includes a "controller" that will "periodically switch" in a "predetermined sequence" to, at least, each such frequency in which a 'non-zero' "priority" has been assigned and, further, that a means for "maintaining" the receiver on such priority channel in "response to the presence of a signal" from a "detector" will be provided. Finally, the present

invention contemplates that even when the receiver is being "maintained" on a frequency, that the "control" system will continue to "periodically switch" the receiver to "higher priority" frequencies and, if a signal is "detected" thereon, to thereafter "maintain" the receiver on such higher, or highest, priority frequency.

It is true that Rubin '543 treats the subject of "prioritization" - - but "prioritization" in the sense of "messages", *i.e.* which "message" has the highest priority. The dichotomy is one of "message prioritization" verses "channel prioritization".

In a real sense Rubin teaches the opposite of the present invention. The present invention contemplates multiple channels and determining which of these channel the receiver shall be tuned while Rubin, in contrast, describes a system comprised of a single frequency or channel and how messages on that single channel can be sent to assure that higher priority messages are given priority:

> "Apparatus in a transceiver for broadcasting priority rated *messages* on
> a *channel* . . . " (emphasis added)(Rubin '543, Abstract).

Rubin, in more detail, teaches a system in which higher priority messages will pre-empt messages of lower priority (such lower priority messages being delayed or terminated) to allow for the interference-free transmission of higher priority messages on the given (single) channel. Rubin describes this as "prevent(ing)" or, if previously commenced, "interrupt(ing)" lower priority *messages* on the channel in order that higher priority *messages* shall prevail:

> "A central data processor *prevents* broadcast of the message while any
> other message of higher priority rating is being broadcast, or *interrupts*
> broadcast of the message . . . " (emphasis added)(Rubin '543 Abstract)

See also:

> "This invention relates to the art of radio transceiver systems and more
> particularly . . . method for broadcasting priority rated *messages* on *a*
> *communications channel* of a multiple transceiver system . . . (t)hese

4

radio transceivers *share* the *same* narrow communications *channel* or assigned broadcast *frequency*." (emphasis added). (Rubin '543, Col. 1, lines 10 - 20)

"If during a first transceiver's broadcast . . . another transceiver has initiated a higher priority *message*, the first transceiver will interrupt it own transmission to *clear the channel* and (thereby permitting) the higher priority *message* to access *the communications channel*. (emphasis added)(Rubin '543, Col 3, lines 17 - 22).

It is not believed, therefore, that Rubin teaches nor describes various of the claim elements of, for example, Claim 1 of the present invention including "memory registers . . . (defining) priority levels" which registers, in turn, - - as now more clearly claimed - - are associated with "priority frequencies".

Rubin has an entry means, but this means only permits the entry of message priority codes (as well as certain other "control" functions, *e.g.* Start, Stop, Play and Replay of messages) - - all *unrelated to frequency* selection.. Rubin does not, in short, disclose the claimed programmable memory registers for channel selection nor means for entering frequencies into such registers. See Rubin '543, Col. 4, lines 55 - Col. 5, line 2) including:

: "The keyboard **50** has ten keys . . . may be used for entry of [message] *priority* . . . control buttons or keys **83** bearing the legends START, STOP, PLAY AND REPLAY . . . "

Rubin clearly discloses control means, but control means for implementing the selection of *priority messages* on a given predetermined channel/frequency. Rubin, therefore, does not anticipate the claimed "control means" that "periodically switch(es) . . . to each priority *frequency* . . . . in a predetermined sequence." (emphasis added). Nor does Rubin's control means interrupt (modify) the periodic sequence to "maintain the receiver on a switched frequency" in response to "the presence of a signal" from a "detector" means. And considered important to the present invention, is the

5

"control means" which, while "maintaining the receiver" on a particular "detected" (*i.e.* "signal present") channel, nonetheless continues its "predetermined sequence" to ascertain whether there are yet higher priority channels that must be scanned and, if a higher priority signal (frequency) is detected, switching and maintaining the receiver on this latter channel.

In summary, when Rubin '543 is properly interpreted as disclosing a system for controlling the sequencing of priority (and non-priority) messages from one or more transmitters all sharing a common frequency/channel, it may be seen that most of the claim limitations (of Claim 1) are not 'read upon' nor anticipated by Rubin. For this reason, Applicant respectfully requests allowance of Claim 1 (and Claims 2 - 8 depending therefrom) over Rubin.

Claims 3-4 & 6 stand rejected under 35 U.S.C. §103 over Rubin '543 in further view of Englert '703. While the following comments are specifically directed to the present rejection of Claims 3,4 and 6, Applicant believes that all claims are distinguishable over the cited combination for the reasons set forth hereinafter. Quoted claim limitations, therefore, refer to the broadest claim, Claim 1.

We again commence by reviewing the cited reference, Englert '703. Englert '703 describes a frequency scanning transceiver. While we make no distinction between a mere "receiver" and a "transceiver" in the context of the presently claimed invention, we draw the distinction in discussing Englert '703 because the Englert invention is essentially one of determining on which *transmit* channel the scanning transceiver will transmit when a "talk signal" (*i.e.* a "PTT" or Push-To-Talk signal) is generated. More specifically, Englert teaches the invention of *automatic determination* of transmit frequencies depending on the status of the receiver at the time the PTT is generated. And more specifically, the process whereby a "priority" channel is automatically selected for transmit

unless, in a predetermined comparatively short interval therebefore, the receiver (of the transceiver) has detected a signal on a non-priority channel and has, in response thereto, stopped scanning on that frequency, *and further*, has not re-initiated scanning after such non-priority signal has ceased. Englert addresses the problem in which conventional scanning transceivers transmit on the priority channel, not on the channel to which the transceiver may have temporarily been tuned, as follows:

> "When the unit detects channel activity on a specific channel . . . it discontinues the scanning both during the channel activity and for a predetermined wait period after . . . Should a talk signal (PTT) occur within the wait period . . . talk signal is precessed on the *specific channel* (*i.e.* the transmitter will transmit on the channel that the transceiver is then tuned). However, the talk signal (PTT) may occur during scanning . . . (then) the talk signal is processed on the priority channel (*i.e.* the transmitter will transmit on the priority channel)(parenthetical and emphasis added)(Englert '703 Abstract).

Englert notes that often mobile transceiver users wish to respond on the same (non-priority) channel to which the transceiver most recently was listening, *i.e.* the frequency where the transceiver has temporarily stopped during its scan sequence:

> "Such (prior art) transceivers include limitations that are poorly suited to meet the needs of many mobile transceivers . . . a transceiver may hear an audio message while the transceiver is in scan mode and wish to transmit a response on the *same channel* . . . (parenthetical and emphasis added)(Englert -703, Col. 2, lines 5 - 11).

Englert concludes that its claimed invention solves the problem, more specifically, of having to direct ones attention to the transceiver to ascertain on which channel an incoming message is being received and, thereafter, to manually select that channel for transmission - - not infrequently while trying to drive an emergency vehicle in traffic.

Thus, it will be appreciated that thrust of Englert relates to transceivers and how to select a transmit frequency in such transceivers. With respect to Englert's *receiver*, however, Englert is seen

7

as describing a priority scan technology of the type previously disclosed and discussed in the Specification. See, for example, Goncharoff, U.S. Patent No. 4,287,599, (automotive AM receiver interrupted by CB radio) or Beard, U.S. Patent No. 6,055,419 (a receiver, only, in which AM/FM broadcasts are interrupted by communications transmission). All three of these receivers interrupt a present listening 'watch' when a signal is received on an alternate, but priority, channel.

Unlike these less sophisticated prior receivers, the invention claimed herein is a scanning receiver (transceiver) having multiple layers or levels of nested priorities. To implement this layered priority, the apparatus of the present invention must include means for programming and storing multiple channel frequencies in "memory registers", each register "associated", not merely with a particular frequency, but importantly with a "priority". And, importantly, there must be "at least two" of such registers and, central to the nested-priority feature of the invention, these "at least two ... registers" must be "ranked" whereby one is ranked "higher" than the other. The controller of the present invention operatively interacts with this ranked frequency/register structure (and therefore expands and significantly extends the teachings of prior art scanners of the Goncharoff '599, Beard '419 and Englert '703 lineage) by necessitating, firstly, that the controller, in a "predetermined sequence" "switch() the receiver *to each priority frequency.*" The prior art's single priority arrangement not only does not switch between *plural* priority registers, but Englert (and the other cited references) don't undertake the second 'nested' requirement of the claimed controller, *to wit*, that while the receiver is being "maintained" on a channel (priority or non-priority), the controller continues the "predetermined sequence" to "all designated frequencies having priority rankings higher than" the channel currently being "maintained" and, further, the control means must thereafter "maintain" the receiver on any new, higher comparative priority channel to which the controller,

8

under the scanning "predetermined sequence", has switched the receiver and "detected" a signal.

We concur with the Examiner that it would be obvious to "incorporate a radio communications apparatus that may both receiver and transmit". And we agree with the Examiner's comments that Rubin solves the problem facing Rubin's single frequency/channel structure by 'ordering' transmissions according to priority on the single frequency because the channel must be clear in order that any of the transceivers be able to hear the priority message.

But the cited references do not suggest the proposed combination as an alternative to overcome congestion, structure priority, or otherwise. Indeed, just the opposite is true as the central precept of Rubin is solving the problem of passing priority messages *in situations where one cannot switch channels* - - where the nature of the overall communications system requires all 'units' to be on a single common frequency.

In view of the foregoing, it is respectfully contented that the amended claims of the instant application are patentable over the sited art and allowance is requested.

Applicant would appreciate the opportunity to conduct a telephonic interview concerning any of the above in the event that the Examiner has question or disagreement with the foregoing.

R. Winston Slater, Reg. No. 30,426
R. Winston Slater
109 N. Main Street
Algonquin, Illinois 60102
Phone (847) 658-1400
Fax (847)-658-7900